

WASHINGTON, DC—Today, April 22, 2009, is Earth Day, and Congressman Joe Sestak (PA-07) was proud to vote for two important environmental bills: H.R. 1580, the Electronic Device Recycling Research and Development Act, and H.R. 957, the Green Energy Education Act. The House passed H.R. 957 by a vote of 411 to 6; H.R. 1580 passed by voice vote.

“Protecting the environment is no longer an option, and it’s not something we can put off to tomorrow,” said Congressman Sestak. “Our environmental security is crucial to our health and well being, our economy, and even our national security. As we celebrate Earth Day, I am proud to support this important legislation.”

“The Electronic Device Recycling Research and Development Act will help ensure that today’s cutting-edge electronics don’t become tomorrow’s environmental waste,” the Congressman continued. “Technology and innovation have as much a role to play in solving this problem as they did in its creation. Also, there is a real gap in university-level education and training for the next generation of ‘green’ building professionals. The Green Energy Education Act helps address that gap, so we will have the expertise we need to construct a bright, clean, prosperous future for ourselves and our children.”

H.R. 1580, the Electronic Device Recycling Research and Development Act, authorizes the EPA to award grants to reduce the environmental impact of discarded electronic devices and promote the recycling of these devices through research, development and demonstration projects.

As technology advances, Americans are discarding tons of electronics every year. These materials include cell phones, televisions, PDAs, MP3 players, computers, DVD players, among others. Estimates vary, but the EPA reported that in 2005 alone, Americans generated approximately 2.2 million tons of obsolete electronic devices. Of the 2.2 million tons, 1.8 million tons were disposed of in landfills, and less than 400,000 tons were recycled. This is problematic because many of these devices contain hazardous substances, like lead and cadmium, which may leech into soil and water.

H.R. 957, the Green Energy Education Act, authorizes the Department of Energy to partner with the National Science Foundation to provide grants to institutions of higher education for education and training for the next generation of engineers and architects in clean energy and

high-performance building design.

Buildings consume more energy than any other sector of the economy, including industry and transportation. According to the Department of Energy, American buildings consume 39 percent of our nation's primary energy and 70 percent of electricity. However, energy-efficient practices are currently not being fully utilized, in part because of a lack of awareness about energy efficient technologies and design practices among building professionals.

Details of H.R. 1580, the Electronic Device Recycling Research and Development Act

The bill authorizes EPA to award grants to reduce the environmental impact of discarded electronic devices and promote the recycling of these devices through R&D projects. The bill directs the EPA to make competitively-awarded, peer-review grants available to consortia of universities, government labs, and private industry for research, development and demonstration projects for electronic device recycling, re-use, refurbishment, and environmental life cycle analysis.

The bill calls for a study on the barriers to recycling of discarded electronic devices. The bill directs the EPA to arrange a study by the National Academy of Science to look at the barriers and opportunities available to increase electronic device recycling, reduce the use of hazardous materials in electronic products, and address other issues related to their environmental impact.

It also authorizes EPA to award grants for curriculum development in the areas of recycling electronic devices and enabling environmentally friendly designs. The bill directs the EPA to make competitively-awarded, peer-review grants available for curriculum development to introduce engineering students to topics related to recycling electronic devices and enabling environmentally friendly designs. Similarly, grants will be available for developing continuing education curriculum for professionals in the electronics manufacturing, design, refurbishing and recycling industries.

The large amount of discarded electronic devices being placed in landfills is creating a serious problem. Americans are discarding tons of electronics every year, including cell phones, televisions, PDAs, MP3 players, computers, DVD players, etc. Estimates vary, but the EPA reported that in 2005 alone, Americans generated about 2.2 million tons of obsolete electronic

devices. Of the 2.2 million tons, 1.8 million were disposed of in landfills, and less than 400,000 were recycled. This is problematic, because many contain hazardous substances, like lead and cadmium, which may leech into soil and water.

Currently, only about 15 percent of electronic devices are recycled in the U.S. This low rate reflects a number of barriers such as: the expense of collecting old devices from consumers; the time and labor-intensive disassembly process; and the low value of many of the materials, such as lead and plastics, recovered from electronic devices.

We urgently need research and development in order to both create more environmentally friendly electronic devices and promote the recycling of these devices. We need research and development in such areas as: recycling technologies, so we can more efficiently sort and process materials; product design, to make recycling easier, avoid environmentally sensitive materials, and enable re-use or extended use of electronic devices; consumer behavior, to increase recycling and re-use of electronics; and improvements in the logistics of collection of electronic devices for recycling.

Details of H.R. 957, the Green Energy Education Act

The bill authorizes grants to support graduate education in the area of clean energy and high-performance building design. The bill authorizes the Department of Energy to partner with the National Science Foundation to provide grants to institutions of higher education for education and training for the next generation of engineers and architects in clean energy and high-performance building design.

It responds to a recommendation of the National Academies' 2005 Gathering Storm report: developing scientific and engineering talent in key "areas of national need." One key area of national need is reducing America's dependence on foreign sources of energy and reducing greenhouse gas emissions. Our reliance on imported energy only serves to increase our vulnerability to regimes that are, in many cases, openly hostile to our interests. Reducing greenhouse gas emissions is also key to building our nation's long-term economic security. One of the ways we can reduce both our dependence on foreign energy and greenhouse gas emissions is to increase the energy efficiency of our buildings.

Buildings consume more energy than any other sector of the economy, including industry and transportation. According to the Department of Energy, American buildings consume 39 percent of our nation's primary energy and 70 percent of electricity. However, energy-efficient practices are currently not being fully utilized, in part because of a lack of awareness about energy efficient technologies and design practices among building professionals.

Innovations in high-performance building technologies can transform energy consumption. Innovations in high-performance building technologies, materials, techniques and systems, combined with advances in photovoltaic and other distributed clean energy technologies, have the potential to dramatically transform the pattern of energy consumption associated with buildings.

These innovative technologies, coupled with a "whole-building" approach, will help us meet our national goals on sustainable development and energy security. Innovative high-performance building technologies -- coupled with a whole-building approach that optimizes the interactions among building systems and components -- enable buildings to use considerably less energy, while also helping to meet national goals for sustainable development, environmental protection, and energy security. But achieving this depends on architects, engineers, contractors and other building professionals working together from the earliest stages of planning.

In summary, this bill addresses the current gap in providing education and training for the next generation of engineers, architects, and other building professionals. The high-performance, or green, building movement is growing rapidly, but it is still a very small slice of the multi-billion dollar building industry. This bill addresses a critical need to provide resources to universities to update their curricula and education efforts in alternative energy and high-performance buildings, and it improves coordination between the Department of Energy and the National Science Foundation in achieving this goal.

Born and raised in Delaware County, former 3-star Admiral Joe Sestak served in the Navy for 31 years and now serves as the Representative from the 7th District of Pennsylvania. He led a series of operational commands at sea, including Commander of an aircraft carrier battle group of 30 U.S. and allied ships with over 15,000 sailors and 100 aircraft that conducted operations in Afghanistan and Iraq. After 9/11, Joe was the first Director of "Deep Blue," the Navy's anti-terrorism unit that established strategic and operations policies for the "Global War on Terrorism." He served as President Clinton's Director for Defense Policy at the National Security Council in the White House, and holds a Ph.D. in Political Economy and Government from Harvard University. According to the office of the House Historian, Joe is the highest-ranking

former military officer ever elected to the U.S. Congress.

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